MITSUBISHI ELECTRIC

DIGITAL RECORDER

USER'S MANUAL

MODEL

DX-TL4509E
DX-TL4509E(Z)

CE

THIS INSTRUCTION MANUAL IS IMPORTANT TO YOU. PLEASE READ IT BEFORE USING YOUR DIGITAL RECORDER.

ENGLISH
DEUTSCH
FRANÇAIS
ESPAÑOL
РУССКИЙ
ITALIANO
NEDERLANDS
OTHERS

Caution and care

HEAVY OBJECTS SHOULD NEVER BE PLACED ON THE UNIT (E.G., MONITOR)

NEVER TOUCH OR INSERT ANY OBJECT INSIDE THE UNIT
Touching the inside of the cabinet or inserting foreign objects of any kind through the disc loading slot or ventilation holes not only creates a safety hazard but can also cause extensive damage.

PROTECT THE POWER CORD
Damage to the power cord may cause fire or shock hazard. If the power cord is damaged, turn OFF the MAIN switch and carefully unplug the cord by holding the main plug.
If this unit is moved with the power on status, the built-in HDD may be damaged. Confirm that more than one minute have passed since the power cord and the connecting cords were disconnected, then move this unit. Make sure to take the disc out and close the disc loading slot.

UNPLUG THE POWER CORD DURING A LONG ABSENCE
Turn off the power and unplug the power cord during a long absence.

MAINTAIN GOOD VENTILATION
Do not obstruct the many ventilation holes on the unit. For maximum ventilation, leave some space around the unit and place the unit on a hard level surface only, and ensure it is not covered during use. Heavy objects should never be placed on the unit.

WHEN NOT IN USE
When not in use, always eject the disc and turn OFF the MAIN switch.

CABINET CARE
Never use petroleum-based cleaners. Clean with a soft cloth moistened with soap and water and wipe dry.
PVC cables or leads should not be left in contact with the cabinet surface for long periods.

INSTALLATION LOCATION
For excellent performance and lasting reliability install in a location that is:-
1. Well ventilated, out of direct sunlight and away from direct heat.
2. A solid vibration-free surface.
3. Free from high humidity, excessive dust and away from magnetic fields.
4. Please ensure that the ventilation fan located on the unit's back panel is not blocked.

UNSUITABLE LOCATIONS
Placing the unit in the following places might shorten the product life:
- Extremely cold places, such as refrigerated warehouses and ice houses
- Places where excessive hydrogen sulfide is likely to be generated, such as hot-springs areas
- Places or locations with salt air environment.

THIS EQUIPMENT DOES NOT PROVIDE CONNECTION FOR USED WITH OUTDOOR OR CABLE DISTRIBUTION SYSTEMS.

NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.
DO NOT PLACE HEAVY OBJECT ON THIS UNIT.
DO NOT STEP ONTO THIS UNIT.
DO NOT PLACE ANY OBJECTS IN FRONT OF THE DISC LOADING SLOT.
The unit may drop or fall by losing its balance. It may cause injury or failure of the unit.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE. THIS APPARATUS MUST BE GROUNDED.

MAINS LEAD CONNECTION
The mains lead on this Unit is fitted with a non-rewireable mains plug, incorporating a 5A fuse. If you need to replace the fuse, use a 5A fuse approved by BSI or ASTA to BS 1362, ensuring you refit the fuse cover. If the mains plug is not suitable for the sockets in your home, and you require to remove the plug, remove the fuse, cut off the plug then dispose of the plug immediately, to avoid a possible electric shock hazard. To refit a new plug, follow these instructions; Green-and-yellow: Earth, Blue: Neutral and Brown: Live. As the colours in the mains lead of this Unit may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.
- The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
- The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
- The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

This unit complies with the requirements of the EC Directive 89/336/EEC, "EMC Directive" and 73/23/EEC, "Low Voltage Directive", as amended by Directive 93/68/EEC. The requirements for the susceptibility according to EN 55024 and the requirements for interference according to EN 55022 are observed for the operation on residential areas, business, light industrial premises and in small scale enterprises, inside as well as outside of the building. All places of operation are characterised by their connection to the public low voltage power supply system. This unit is manufactured in accordance with EN 60950-1.

Note: This symbol mark is for EU countries only.
This symbol mark is according to the directive 2002/96/EC Article 10 Information for users and Annex IV.

Your MITSUBISHI ELECTRIC product is designed and manufactured with high quality materials and components which can be recycled and reused.
This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.
Please, dispose of this equipment at your local community waste collection/recycling centre.
In the European Union there are separate collection systems for used electrical and electronic product.
Please, help us to conserve the environment we live in!

Notice about construction of the surveillance system using this unit

- This unit can be controlled by the external devices via RS-232C terminal or LAN terminal. This unit can also be used to control external devices via external terminal, RS-422/485 terminal, or RS-232C terminal. Owning to these functions, this unit flexibly applies to the high grade security system, but the whole surveillance system may be affected by the malfunction of this unit or the external devices depending on the setting contents of this unit, the connection with the external devices, or combination between this unit and the external devices.
- When configuring a surveillance system using this unit, it is recommended to confirm first that this unit operates normally with the other devices connected.
- It is recommended to copy or back up the important recorded contents.
- Damages rising out of any operational error of the surveillance system or loss of the recorded data or any other damages because of any user malfunction of this unit are not covered.
- Do not use the notification function of this unit for making critical judgement nor any purpose related to human lives.
- When this unit cannot recognize the external device which is being used for recording due to the power failure, decreased voltage, or other failures, the recording point may be moved to the internal HDD of this unit or the other external HDD. To prevent occurrence of such problem, it is recommended to use uninterruptible power supply.
- If the power plug is disconnected or the breaker switch is turned off during recording, HDD may be damaged or playback of recorded data may become impossible.
  If the breaker switch is turned on and off everyday, set the timer recording to be performed only for the period that the breaker is on and do not turn off the breaker during recording.

There may be cases when the unit's built-in motion detection function does not operate properly due to external condition, video input signal, or other factors.

The user will not be indemnified for problems (e.g., recording failure or playback failure) that occur with either the unit or a connected device during operation. It is recommended to back up the important recordings regularly as a precaution against possible breakdowns and accidents.

Recordable time and product warranty
Continuous recordable time and the estimated time displayed on the menu screen indicate the continuous time of recording operation of this unit. They indicate the period neither for product warranty nor that for reliability of used parts.

- This unit uses a built-in HDD, which is a precision device. Handle this unit with sufficient care.
- Do not subject this unit to vibrations or shocks. This may cause trouble specially when the power of the unit is turned on or when the HDD is being accessed, and sufficient care is required.
- Do not disconnect the power plug while the power of the unit is turned on or while recording or playing.
- For early detection of faults, we recommend that you request inspection once a year.

The HDD and cooling fan of this unit are driving parts. For stable recording, it is recommended that both of these parts are replaced every 30,000 hours.
(This interval is for reference purpose only and does not indicate the warranty period of the parts.)

DISCLAIMER

In any event, Mitsubishi assumes no responsibility or reliability for the following:

1. Disassembly, repair, or alteration of this unit by user or installer.
2. Failure or breakdown in or damage to this unit resulting from misuse or careless handling by user or installer.
3. Inconvenience or damages arising out of inability to display or record pictures due to any reason or cause other than breakdown or failure in this unit.
4. Failure in this unit due to combination with other equipment manufactured by a third party or inconvenience or damages resulting from such failure.
5. Inconvenience, damages, or claims arising out of breakdown in this unit or loss of recorded video data due to replacement of the built-in HDD by user or installer.
6. Inconvenience or damages arising out of breakdown in this unit or inability to display or record pictures due to natural disaster including earthquake and storm.
7. Inconvenience, damages, or claims arising out of breakdown in this unit or loss of recorded video data due to impact or vibration to the built-in HDD or an environmental factor such as temperature at the installation site.
8. Demand for damages or other claim of infringement of privacy if the pictures monitored or recorded by user become public or are used for any purpose other than surveillance for whatever reason.

INSTALLATION LOCATION AND HANDLING

- Place this unit horizontally and in a stable place. If this unit is not placed correctly and used in an unstable place, the unit may be damaged such as removal of the DVD/CD disc.
- Do not place this unit close to other electronic or magnetic equipment. This will avoid video and audio distortion.
- When a monitor and this unit are placed vertically, the pictures may be distorted or DVD/CD disc may not be ejected.
- Do not let stick your hands into the disc loading slot. You may get your hand caught in the slot and may got injured. If you get your hand caught, do not get out of the slot by force. Contact your dealer after turning off the power and disconnecting the plug.

DVD/CD DISC

- Do not use the disc cracked, deformed or repaired with adhesive. The disc may fly into pieces and cause injury.
- Do not touch the playback surface when holding the disc.
- When dew condensation occurs on the disc, wipe the surface off before use.
- Dirt such as fingerprints or dust causes the deterioration of the picture quality and audio quality. Gently wipe the DVD/CD disc from the center to the outside with a soft cloth.
- When the disc is very dirty, soak a soft cloth with water and screw water of it, wipe off the dirt lightly, then wipe with a dry cloth.
- Do not use solvent such as benzine and thinner, a record cleaner, and static-stopper. They may damage the disc.
- Do not use the disc described below. They may damage the disc itself or this unit.
  Discs on which a piece of paper or sticker is put, or a disc damaged.
  Discs which the label is peeled or a disc with oozing.
  Discs cracked, deformed, or repaired with adhesive.
- Store the disc in the specified casing, avoiding the following places.
  Places where it will be subjected to direct sunlight.
  Places with excessive dust.
  Places where it will be subjected to high temperatures or high humidity.
- DVD movie (cinema) or personal recorded picture cannot be played back on this unit. Only the pictures recorded on this unit can be played back.
- Do not use the disc which has been used on the personal computer, failed to be copied, or stopped during copying due to the power failure because they may cause malfunction of the unit.
- Although you can copy the data on DVD/CD with this unit and playback that data on the personal computer using the supplied application software, not all the personal computers or DVD/CD drives are ensured for proper playback of such data.

MAINTENANCE OF THE LENS FOR RECORDING/PLAYBACK (LASER PICKUP)

- When any dust adheres on the lens for recording/playback, the picture may be distorted or the audio may skip. Also normal recording or playback may not work. Ask your dealer how to correct this problem.
  Be careful, do not use the commercial lens cleaning disc, they may damage the lens.

PRECAUTION CONCERNING EXTERNAL DEVICE

- The various external HDDs can be connected to this unit in order to expand the memory or to use as the copy device. However, during recording or playing back a picture at high rate, some pictures may be missed due to the slow rate of data transfer or the slow speed of response from the external device connected. Be sure to check the operation sufficiently in advance.
- Do not use the power control function of the external device which uses bus power of this unit.
- The external device to be used may be unsuitable for the operation you want to set. It is recommended to consult your dealer when using the external device.

Warning

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CLASS 1 LASER PRODUCT

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How to read this manual

Viewing displays

(Refer to this information when operating):
Reference information concerning operation

(Caution required):
Cautionary items concerning operation

Finding desired information

There is a “Contents” at the beginning of this manual.

Troubleshooting

Read Troubleshooting (pages 34, 35) for possible remedies to the problem.

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ENGLISH

Note

Thank you for purchasing Mitsubishi digital recorder DX-TL4509E/DX-TL4509E(Z) (hereinafter referred to as “Product”). Before using this Product, please be sure to read the following Software License Agreement with regard to the software contained in this Product (hereinafter referred to as “Licensed Software”). **By using this Product, you are agreeing to be bound by the terms and conditions of the following Software License Agreement.**

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* The documents of “Notice about software to which GNU GPL/LGPL is applied,” “Notice about Apache software,” “Notice about OpenSSL software,” and “Notice about other open source software” are contained (in the format of electronic files as notice_GPL_LGPL_ja.pdf, notice_Apache_ja.pdf, notice_OpenSSL_ja.pdf, and notice_other_ja.pdf) in the “OpenSoft_License” folder in the CD supplied with this Product.

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Licensor hereby grants to User a nonexclusive, nontransferable license to use Licensed Software.

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1. The license to use Licensed Software granted hereunder shall mean the User’s right to use Licensed Software solely on this Product. User is hereby allowed to refer to the descriptions and instructions related to Licensed Software contained in the user’s guide of this Product to the extent necessary for use of such Licensed Software.
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Licensor and Original Right Holder shall make no warranties whatsoever with regard to Licensed Software and have no liability for any damages suffered by User or any third party arising out of User’s execution of the license granted hereunder, except in cases where any applicable laws are extended.

Article 6 (Responsibility toward third party)

Any issues related to intellectual property rights, including but not limited to rights of privacy, copyright, and patent, involving any third party arising out of User’s use of Licensed Software shall be settled by User on its own responsibility, and Licensor shall have no responsibilities for such issues.

Article 7 (Confidentiality)

User shall keep secret the details of Licensed Software and pertinent documents provided hereunder and the contents of this Agreement that are unknown publicly and shall not disclose or leak such details and contents to any third party without consent of Licensor.

Article 8 (Termination)

In case of either of the following events, Licensor may terminate this Agreement immediately and may claim against User for resulting damages it suffers.

(1) User’s violation of any provision of this Agreement.

(2) Occurrence of filing against User for seizure, provisional seizure, provisional injunction, or other forcible execution.

Article 9 (Disposal of Licensed Software)

If this Agreement is terminated pursuant to the preceding article, User shall dispose of Licensed Software, pertinent documents, and any copies thereof in its possession within two weeks after termination hereof and shall provide Licensor with a written certification of such disposal.

Article 10 (Update of Licensed Software)

If User updates Licensed Software using an update CD supplied or sold by Licensor or any other means, this Agreement shall remain applicable to the updated version of such Licensed Software, unless Licensor provides additional separate terms and conditions for using the updated version of such Licensed Software.

Article 11 (Miscellaneous)

1. If any provision of this Agreement is determined to be invalid by law, the remaining provisions hereof shall remain valid and enforceable.
2. If any doubt arises in relation to matters not defined herein or interpretation hereof, Licensor and User shall discuss such doubt and attain a solution in a faithful manner.

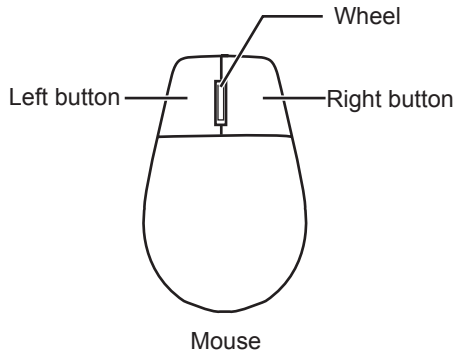
How to set the menus

■ Setting the menus

The operations of this unit can be set via a menu displayed on OUTPUT A monitor. You can select and set the menu by using the buttons on the front panel or using a USB mouse connected to the unit. When using the front panel buttons, the numbers 1-16 (number buttons) and letters A to E (A to E buttons) represent the GUI button of the menu screen.

❗ The menu can only be displayed through OUTPUT A monitor. The menu cannot be displayed through OUTPUT B monitor.

◆ Setting the menu using a mouse



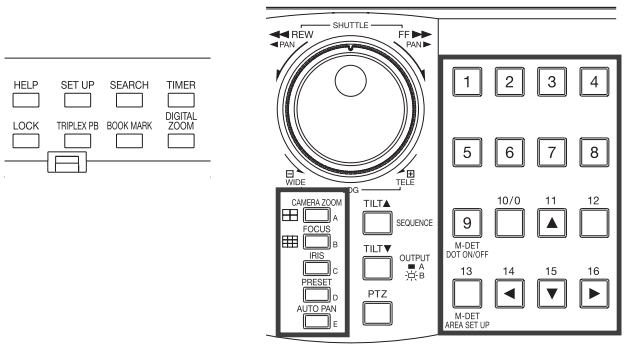
❗ Mouse is not supplied with this unit.

Use the standard USB mouse which has left and right buttons as illustrated to the left. Note that you cannot use the mouse with this unit depending on the mouse connected.

step1. Use the left and right mouse buttons to set the menu.

- Click the left button to open the menu or select a needed item, etc.
- Click the right button to set the active area for motion detection function.
- The wheel on a mouse does not work with this unit.

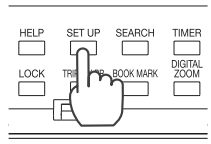
◆ Setting the menu using the front panel buttons

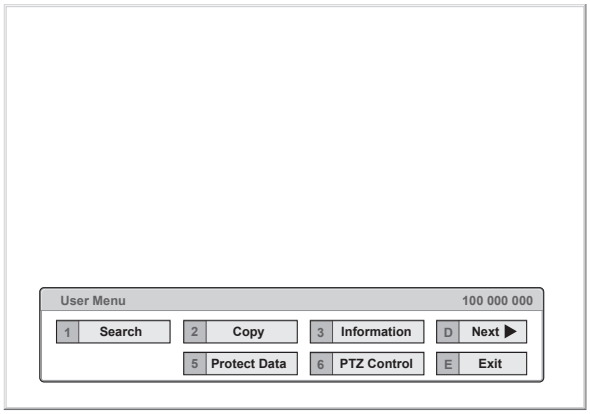


step1. Use the SET UP button, number buttons, and A to E buttons to set the menu.

- Press the SET UP button to display the menu screen.
- Press the number buttons (1 to 16) and A to E buttons to open each menu or to select the needed item.

◆ Displaying a menu screen

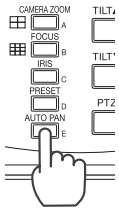


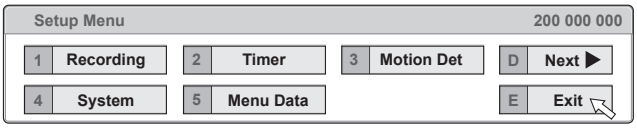


step1. Press the SET UP button or click the left button on the mouse to display a menu.
- The <User Menu> appears.
- To open other menu, press the D button or left-click on “Next ▶.”

When you use a mouse, click the following area to operate.

◆ Closing a menu screen

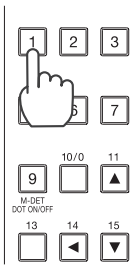


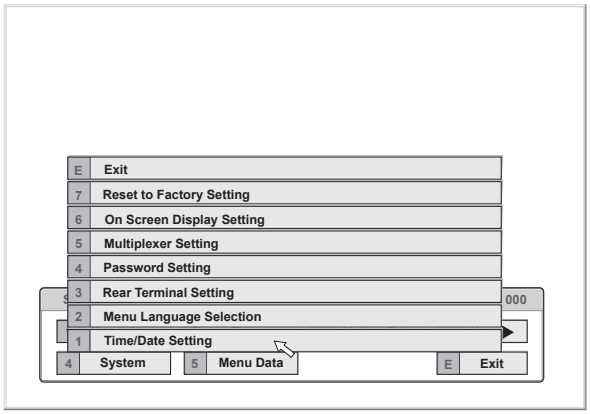


step1. Press the E button or left-click on the “Exit” to close the menu.

You cannot close the menu by pressing the SET UP button on the unit.

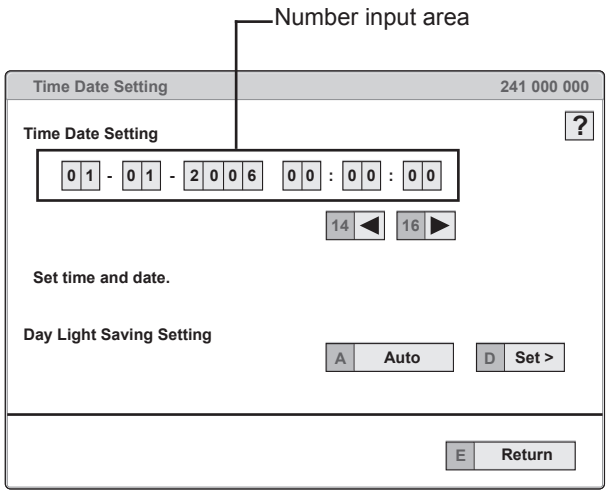
◆ Selecting an item





step1. Press the front panel button of the needed item number or left click on the needed item.
- The selected item menu opens.
- Select an item and press the number, or click on the menu to open the item.

♦ Inputting numbers



Using the front buttons of the unit:

step1. Press the number buttons (0 to 9) to input and use that number.
- The number displayed in red can be changed.

step2. To move to the next input area, press the 16 button.

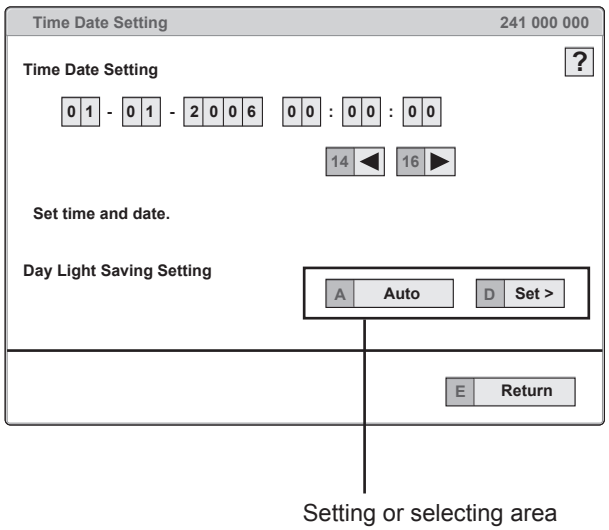
To go back to the previous area, press the 14 button.

Using a mouse:

step1. Left-click on the number in red until the needed number appears.

To change another area, left-click on the needed area or left-click ◀ or ▶.

♦ Setting parameters

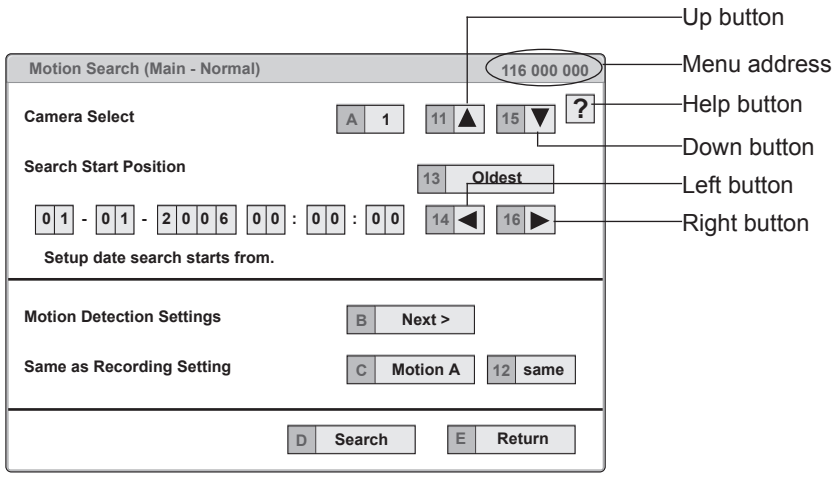


step1. Press the A button or left-click on the parameter box until the item to be set appears.
- For some items, more detailed setting is required. In this case, an item such as “D(Set >)” is displayed. If necessary, press the D button or left-click on the “Set >” to set more details.

❗ When you close the menu, press the E button or left click on “Return” or “Exit.”

❗ You cannot close the menu by pressing the SET UP button on the unit.

■ Symbols in the menus



Some symbols appear in the menu screens. The meanings are as follows.

?	(Help)	When you press the HELP button or click this symbol, the detailed information on the menu appears.
◀	(Left)	When you press the 14 button or click this symbol, the item to be set shifts to left.
▶	(Right)	When you press the 16 button or click this symbol, the item to be set shifts to right.
▲	(Up)	When you press the 11 button or click this symbol, the value of selected item increases.
▼	(Down)	When you press the 15 button or click this symbol, the value of selected item decreases.
Menu address		A unique number for each menu page. You can go directly to each menu page by inputting the menu address number using the front buttons of the unit. For example, when opening the <Motion Search> menu, press the SET UP button and then press the number button in the order of 1, 6.

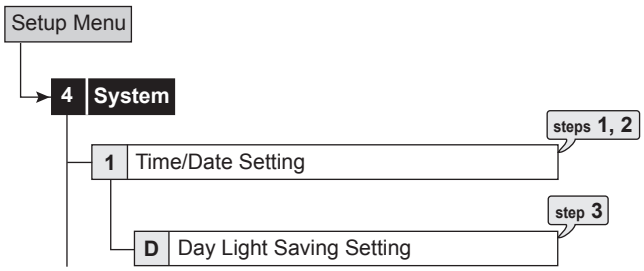
Setting the time and date

■ Time/Date Setting

This item is used to set the present date, time, and auto daylight saving. Auto daylight saving function is used to automatically gain the clock of the unit an hour for the specified time period.

Start/end time of the auto daylight savings can be checked and if needed, changed.

- Before you start recording, accurately set the present date and time.
- The recording and playback are not performed properly when the clock of this unit does not run. Check that the clock of this unit is running before operation.



step1. Set the present month, date, year, hour, minute, and second.

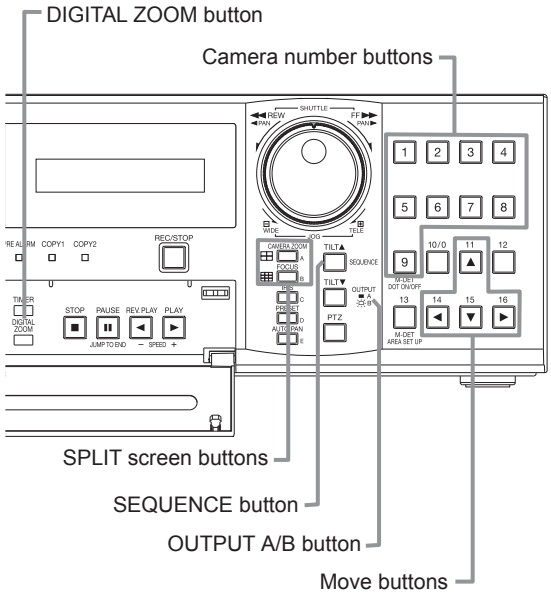
step2. Select the desired setting for daylight saving.
Auto: Automatically adjust forward or back an hour for the time period set in the <Day Light Saving Setting>.
Off: Auto daylight saving function is not used.

step3. Date and time of Auto Day Light Saving Setting can be adjusted as needed.

- The time is indicated using the 24-hour system.
- This unit uses 4 digits to display the year. The available display range is 37 years between 1/1/2001 to 31/12/2037. The unit is also equipped with a function to automatically calculate leap years. The year returns to 2001 after 31/12/2037.

■ Basic multiplexer functions

This function is used to activate multiplexer functions using the buttons on the front panel.



◆ Multiplexer buttons

1. Camera number buttons (1 to 9)

Displays the picture supplied from the cameras connected to CAMERA IN terminals 1 to 9 on the rear panel in the single screen display.

Pictures can be displayed even if the camera is not set to record.

2. SPLIT screen buttons

Each time the button is pressed, displays the split screen in the following order.

SPLIT4 (⊞) button : SPLIT 4a→SPLIT 4b→
SPLIT 4c→SPLIT 4a→• • •

SPLIT9 (▦) button : SPLIT 9 screen

3. SEQUENCE button

Displays the sequential screen in the split screen or the single screen display. Make the detailed settings of this display in the <Multiplexer Setting> (Setup Menu → System). Sequential display does not appear during playback.

The sequential display is cancelled when you press the SEQUENCE button again or display a different type of split screen or single screen.

Pressing the OUTPUT A/B button on the front panel switches the multiplexer video output. When OUTPUT A is selected, the button light indicator is off. When OUTPUT B is selected, the button light indicator is on, and camera number buttons, SPLIT screen buttons, and SEQUENCE button are operated for the monitor screen connected to the OUTPUT B connector. Pressing the OUTPUT A/B button again switches the multiplexer output to OUTPUT A.

4. DIGITAL ZOOM button

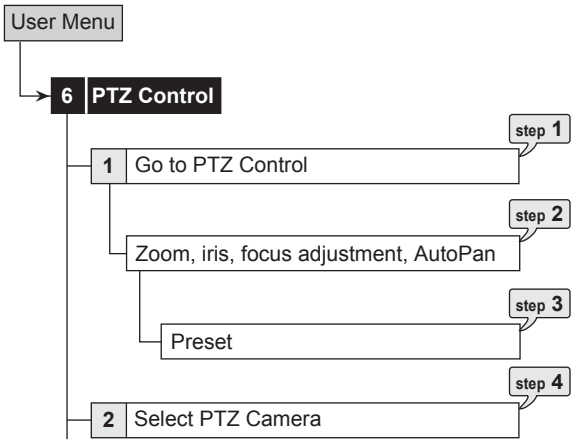
Pressing this button in single screen mode displays the screen at 100%. At this time, the magnification centre point (X) appears. Pressing the button again switches the magnification to 200%, and then 400%. By pressing the MOVE buttons, the centre point moves vertically or horizontally.

When the DIGITAL ZOOM button is pressed, number buttons 11, 14, 15, and 16 move the “X” in the screen.

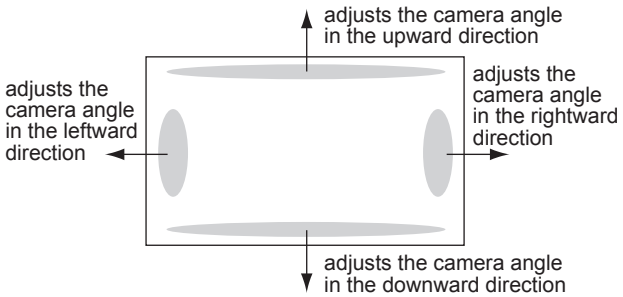
Controlling the camera

This function is used to control the cameras connected via RS-232C or RS-422/485 terminal.

■ PTZ control using the menu



step1. Pan or tilt the PTZ camera connected.
- Click the gray area by using the mouse to adjust the camera angle.


adjusts the camera angle in the upward direction
adjusts the camera angle in the leftward direction
adjusts the camera angle in the rightward direction
adjusts the camera angle in the downward direction

step2. Adjust zoom, iris, and focus. And activate auto pan.

step3. Preset the viewing points 1 to 16.
- The preset points are registered to the PTZ camera for auto pan function.

step4. Switch the camera number to be controlled.
- The camera number to be controlled appears on the LCD display on the front panel.

```
01-01-2006 00:00:00
PTZ CAM1
```

<PTZ Control> can be set using the mouse only. You cannot set it using front panel buttons.

■ PTZ control using the front panel buttons

step1. Press the camera number button of the PTZ camera number to be controlled and display the picture in the single screen display.

step2. Press the PTZ button.
- The unit switches to PTZ mode and the button lights up. “PTZ” appears on the LCD display on the front panel during PTZ mode.

```
01-01-2006 00:00:00
PTZ
```

- The camera number to be controlled appears on the LCD display on the front panel.

```
01-01-2006 00:00:00
PTZ CAM1
```

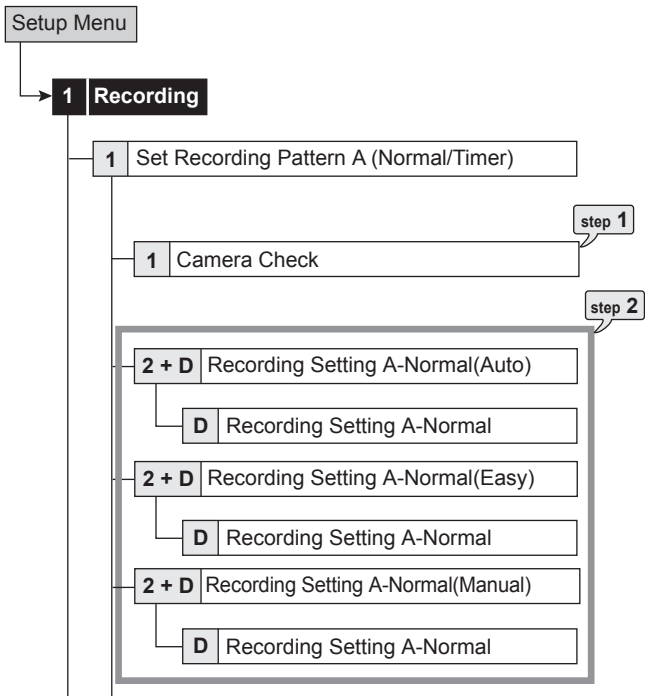
step3. Control the camera.
Tilt: Press the TILT ▲ button to tilt the camera in the upward direction. Press the TILT ▼ button to tilt the camera in the downward direction.
Pan: Turn the SHUTTLE ring to the right to pan the camera in the rightward direction. Turn the SHUTTLE ring to the left to pan the camera in the leftward direction.
Camera zoom: Press the CAMERA ZOOM button and then turn the JOG dial to the left (wide) or right (tele) to adjust the camera zoom.
Focus: Press the FOCUS button and then turn the JOG dial to the left (far) or right (near) to adjust the focus of a camera.
Iris: Press the IRIS button and then turn the JOG dial to the left (close) or right (open) to adjust the iris of a camera.
Preset: Press the PRESET button and then press the number buttons within 3 seconds to preset the viewing points. Up to 16 points can be set.
Auto pan: Press the AUTO PAN button to activate the auto pan function of the camera.

During PTZ operation using front panel buttons, POWER button and functions related to playback do not work. Furthermore, menus cannot be displayed.

■ Basic manual recording

This function is to setup the recording parameters of recording setting pattern A to start recording manually. Ensure all the cameras are connected and time and date has been set correctly. Before you start recording, check the repeat recording settings in the <Data Management Setting for Main Memory> (System Menu → Memory) first, and then make the recording settings.

- Make the manual recording settings on the <Set Recording Pattern A (Normal/Timer)>.
- <Set Recording Pattern A (Normal/Timer)> can be used for manual or timer recording. <Set Recording Pattern B (Timer)> to <Set Recording Pattern D (Timer)> are used for timer recording only.
- Settings here are for manual recording only. For timer recording, settings must be made on the <Timer> menu.



♦ Setting the recording rate and picture grade for normal recording

step1. Execute camera check.
- The unit automatically detects the cameras with video signal at their input when you select “Execute.” The detected cameras are used in the Auto and Easy settings calculation in step 2.

After executing the camera check, the recording settings are made only for the camera numbers with the video signal input when using auto or easy setting.

step2. Set the normal recording menu.

Auto: Automatically sets the picture grade and the recording rate by setting the recording cycle and the recording hour per day. Set the desired settings and then select “Execute.”
- The preview screen appears automatically when the auto setting is executed.

Easy: Sets the frame or field recording, recording rate, and picture grade for normal recording to the same settings for all the cameras. When the recording rate is set to “– – –” for all the camera numbers, normal recording does not perform. Set the desired settings and then select “Execute.”
- The preview screen appears automatically when the easy setting is executed.

Manual: Sets per camera, the frame or field recording, recording rate, and picture grade for normal recording. When you set “– – –” for the recording rate, the recording does not perform for that camera number.
- Select “View” to display the preview screen and check your settings.

When you set frame recording, the recording rate display in the preview screen turns green.

The recording rate display turns red when the value exceeds 100 pps in total.

<Estimated Recording Time>

- The estimated continuous recordable time is displayed on the bottom of the preview screen which is dependent on the picture grade and the recording rate settings for normal recording. (The time does not reflect alarm recording settings.)
- When the main device is partitioned, <Estimated Recording Time> shows the estimated recordable time for normal recording.

step3. Press the REC/STOP button.
- The REC/STOP button lights up and recording starts.

step4. To stop recording, press the REC/STOP button for more than 2 seconds.
- Recording stops and the light turns off.

Playing back the recorded data

■ Basic playback

This function is used to playback recorded data. This unit allows recorded data to be played back using various methods. The basic playback described below is the most common method for playback.

step1. Press the PLAY button inside of the front door.
- Playback starts.
- After turning the power on, the oldest recording data is played back first. Otherwise, playback resumes at the stopped position of the previous playback spot.

When the “Playback Device Repeat Setting” is set to “Repeat Off,” playback stops when reaching the physical end of the HDD or end point of the recording section. When the “Playback Device Repeat Setting” is set to “Repeat On,” recorded data is played back repeatedly. (System Menu → Memory → Recording Data Readout Setting)

[To change the playback device:]

step2-1. Select the playback device and playback area in the <Select Source Device>. (User Menu → Search)
Main: Plays back the contents from the main HDD device.
Normal: Normal recording area
Alarm: Alarm recording area
LPA: Long pre-alarm recording area
Copy 1: Plays back the recorded contents of the copy 1 device.
“SerialBus,” “DVD/CD,” “USBmemory”
Copy 2: Plays back the recorded contents of the copy 2 device.
“Internal,” “SerialBus,” “DVD/CD”

“Alarm” appears when “Alarm Recording Area” is set to other than “0 %.” (System Menu → Memory → Data Management Setting for Main Memory)

“LPA” appears when “Long Pre-Alarm Area” is set to other than “0 %.” (System Menu → Memory → Data Management Setting for Main Memory)

step2-2. Press the PLAY button.
- Playback of the selected device starts.

When you press the PAUSE/JUMP TO END button during the playback is stopped, the still frame playback picture around the end point of the latest recording is displayed.

step3. To pause playback, press the PAUSE button.
- To resume playback, press the PAUSE button again or press the PLAY button.

step4. To stop playback, press the STOP button.
- When executing playback again, the playback starts from the stopped position of the previous playback.

Pressing the OUTPUT A/B button on the front panel switches the multiplexer video output. When OUTPUT A is selected, the button light indicator is off. When OUTPUT B is selected, the button light indicator is on, and the buttons related to playback function are operated for the monitor screen connected to the OUTPUT B connector. Pressing the OUTPUT A/B button again switches the multiplexer output to OUTPUT A.

The playback of each camera may not be executed at a constant speed depending on the recorded condition.

During the split screen display, the playback speed may be slower than the speed used for recording.

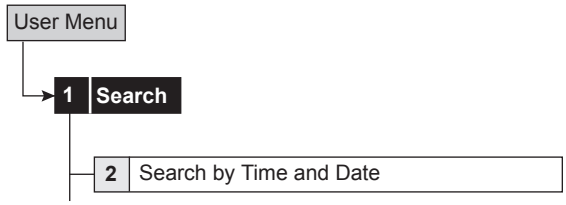
When playing back on both OUTPUT A and B, the playback speed may be affected and become slower.

■ Basic search

This function is used to search the start point of needed picture. This unit is equipped with 5 search functions (Search by Time and Date, Search by Alarm List, Find data storage location, Search by Book Mark, and Search by Motion). In this section, the common search methods, search by time and date and search by alarm list, are described.

◆ Search by Time and Date

This item is used to search recording picture by specifying date, hour, minute, second, and camera number. The search result is displayed in still frame playback. When searching for 1 camera number, the search result is displayed in the single screen display. When searching for 2 or more camera numbers, it is displayed in SPLIT9 screen.



step**1.** To input the time and date to be searched manually, select “Manual” and then set the month, date, year, hour, minute, and second.
- To input the start and end points of recording, select “Start” and “End” respectively.

step**2.** Set the camera numbers to be searched.

step**3.** Select “Search.”

step**4.** To playback the searched picture, press either the PLAY button or the PAUSE button.

step**5.** To stop playback or still frame playback, press the STOP button.

To change the source device to be searched, set the desired device in the <Select Source Device>. (User Menu → Search)

To display the single screen display of the desired camera number when the search result is displayed in the SPLIT9 screen, press the desired camera number button.

When there is no recording data of the set time, the picture of the closest time and date for the set camera number is displayed in still frame.

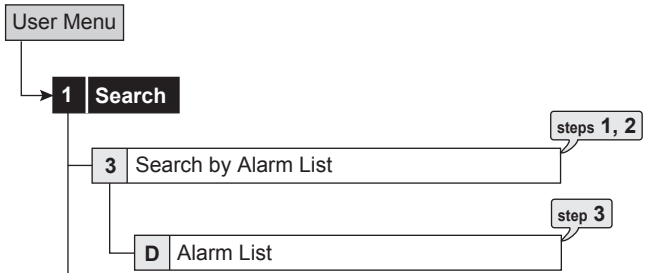
When the multiple recording data of the same date and time are existed, execute search by time and date more than once until the desired picture is searched.

Depending on the recording condition, search by time and date function may not operate correctly.

When you change the display from single to split or from split to single during still frame playback, the recording picture may not be existed at that point or picture may not be displayed depending on the selected camera number or timing of displaying the still frame playback picture.

◆ Search by Alarm List

This unit stores the start time of alarm recording and emergency recording in the alarm list when such recording begins. This item is used to search the desired picture using the list of alarm recording (emergency recording). The search result displays in still frame playback of the single screen display.



step1. Set the month, date, year, hour, minute, second, and sensor number to be searched.
Latest: Displays the date and time of the latest recording.

step2. Select “Alarm List.”

- The alarm list may take longer time to display completely when there are many items in the list.
- The displayed alarm list shows the list of alarm recordings which have been started before and closest to the specified time.

step3. Select the alarm list you want to display.

- To change the source device to be searched, set the desired device in the <Select Source Device>. (User Menu → Search)

  To execute alarm list search while the “Alarm area” and “LPA area” are set, set the playback area to “Alarm” and “LPA” respectively.
- “Sensor” display indicates the sensor number to which the alarm signal is input.
- When repeat recording setting for normal and alarm areas are set to “Repeat Off” and there is an alarm recording (emergency recording) at the end of the HDD, that recording may not be stored in the alarm list and that item may be missed.
- When the data of the camera number which is not corresponded to the alarm sensor number is copied to the external media, the alarm list of that data is not exactly similar to that of listed in the digital recorder.
- When the detection of the motion or the ground of the ALARM IN terminal occurs numerously at the same time, not all the start times of the alarm recording may be registered in the alarm list. In this case, the sensor of the lowest number is registered in the list.
- In the alarm list, items with the ALARM IN terminal grounded are indicated in orange, items that were detected with motion are indicated in white, items with the EMERGENCY terminal grounded are indicated in magenta, and items that were input with alarm signal via communication are indicated in green.
- To clear the alarm list, erase the HDD data of which the alarm recording is recorded (System Menu → Data Clear). Beware that executing it erases all the data of the HDD containing the picture data.
- Alarm list search is not performed if there are no index signals.
- When alarm recording (emergency recording) is started while displaying the <Alarm List>, you must first exit the <Alarm List> and then display it again. The new item is added to the list. In this case, you may have to specify the date and time to be searched again.
- For alarm list search of LPA area, the list from the start point of media is displayed when selecting “To latest,” and the list from the end point of media is displayed when selecting “ To oldest.”

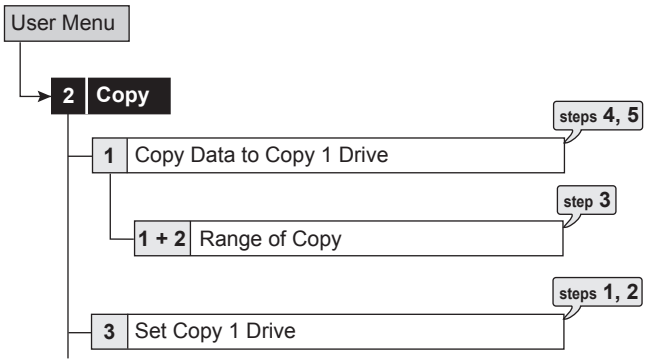
Copying the recorded data

This item is used to copy the data from the main device to a copy device.

■ Copy Data to Copy 1 Drive/Set Copy 1 Drive

This item is used to copy the data to Copy 1 device by specifying the start and end points. The points are specified by the date and time or the bookmark. This function is useful for copying the data of the short period of time.

- Before executing the copy, make sure that the Copy 1 device is connected and set in the <Add/Remove HDD Device> and <Add/Remove DVD/CD Drive> correctly. (System Menu → Memory)



step1. Set the camera number to be copied.
- The button function changes between “All Off” and “All On” each time you select this button. You can switch on and off for all the cameras easily by using this button.
- The picture is not copied when there is no recorded picture of the set camera number or time. Make sure to check that the picture of the specified camera has been recorded on the specified copy start point.

step2. Select “Other settings” and then set the detailed settings.
From Device: Sets the device which contains the data to be copied. The available setting items are “Main” and “Copy 2.”
From Group: Sets the group which contains the data to be copied. The available setting items are “Normal,” “Alarm,” and “LPA” for main, “SerialBus,” “DVD/CD,” and “Internal” for copy 2.
To Copy 1: Sets the group to where the data is copied. The available setting items are “SerialBus,” “DVD/CD,” and “USBmemory.”
Copy Data: Sets the data area to be copied. The available setting items are “Alarm” and “All.”
Overwrite: Selects whether or not to overwrite the existed data.
Auto Eject: Selects whether to eject media (CD/DVD) automatically when the copy is over.

- “Alarm” appears for “From Group” when “Alarm Recording Area” is set to other than “0 %.” (System Menu → Memory → Data Management Setting for Main Memory)
- “LPA” appears for “From Group” when “Long Pre-Alarm Area” is set to other than “0 %.” (System Menu → Memory → Data Management Setting for Main Memory)
- When copying the data to DVD while “Overwrite” is set to “On,” the unit clears the existing data on the disc before overwriting with new data. Note that clearing the data takes about 30 to 40 minutes. You cannot cancel operation during clearing the data of the DVD.
- When copying the data while “Copy Data” is set to “Alarm,” the unit performs copy operation, however, the data is not copied if there is no alarm recording data within the specified range of copy. In case of CD/DVD disc, the remaining capacity becomes low because only the management information is recorded. It is recommended to carry out “Calculate” in <Copy Data to Copy 1 Drive> to confirm whether or not there is alarm recording data in the specified range.

step3. Set the start, start/end, or end point of copy by specifying the date and time or the bookmark number.
Start: Sets only the start point of copy. The data is copied from the specified start point as much data as possible with the remaining capacity of the media to be copied.
Start/End: Sets the start and end points of copy.
End: Sets only the end point of copy. The data is copied as much data as possible with the remaining capacity of the media to be copied until the specified end point reaches.
- To set the bookmark point, select “Bookmark” and then select the desired bookmark number.
- To copy from the oldest recording time, select “Copy Start Time.” To copy to the latest recording time, select “Copy End Time.”

step4. Select “Calculate” to calculate the capacity of data to be copied.

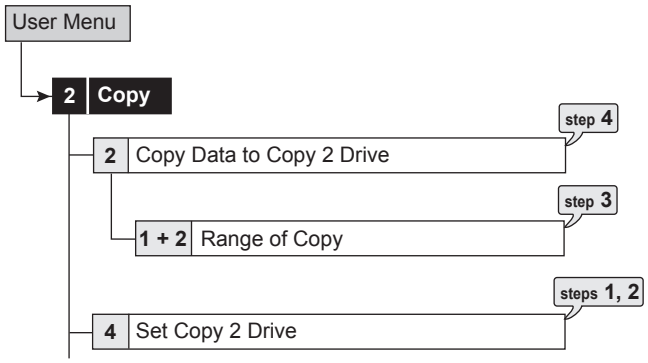
- When using “End,” the copy cannot be executed unless the calculation of the capacity of data to be copied is completed.
- When using “Start” or “Start/End” and executing copy without calculating the capacity of data to be copied, the progress or the time of the copy may not be displayed correctly because the unit cannot determine the capacity of data to be copied.

step5. Select “Execute.”
- The copy starts.
- To stop copy manually, select “Cancel” in the progress screen. The data which has been copied before cancelling is copied.

■ Copy Data to Copy 2 Drive/Set Copy 2 Drive

This item is used to copy the data to Copy 2 device by specifying only the start point. The point is specified by the date and time or the bookmark. The copy continues until the end point of the recording data reaches or the media to be copied becomes full unless the copy is stopped manually (when “FIFO Overwrite” is set to “Off”). This function is useful for making backup of the recording data.

- Before executing the copy, make sure that the Copy 2 device is connected and set in the <Add/Remove HDD Device> and <Add/Remove DVD/CD Drive> correctly. (System Menu → Memory)



step**1.** Set the camera number to be copied.
- The button function changes between “All Off” and “All On” each time you select this button. You can switch on and off for all the cameras easily by using this button.
- The picture is not copied when there is no recorded picture of the set camera number or time.

step**2.** Select “Other settings” and then set the detailed settings.
From Main: Sets the area which contains the data to be copied. The available setting items are “Normal,” “Alarm,” and “LPA.”
To Copy 2: Sets the group to where the data is copied. The available setting items are “SerialBus,” “DVD/CD,” and “Internal.”
Copy Data: Sets the data area to be copied. The available setting items are “Alarm” and “All.”
Overwrite: Selects whether or not to overwrite the existed data.
Auto Eject: Selects whether to eject media (CD/DVD) automatically when the copy is over.
FIFO Overwrite: Selects whether to repeat copying from the start point of the media by overwriting the existed data, or to stop copying when the capacity of the media becomes full during copying. This setting is available only when the copy destination is HDD.

- “Alarm” appears for “From Main” when “Alarm Recording Area” is set to other than “0 %.” (System Menu → Memory → Data Management Setting for Main Memory)
- “LPA” appears for “From Main” when “Long Pre-Alarm Area” is set to other than “0 %.” (System Menu → Memory → Data Management Setting for Main Memory)
- When copying the data to DVD while “Overwrite” is set to “On,” the unit clears the existed data of the disc before overwriting with new data. Note that clearing the data takes about 30 to 40 minutes. You cannot cancel operation during clearing the data of the DVD.
- When copying the data while “Copy Data” is set to “Alarm,” the unit performs copy operation, however, the data is not copied if there is no alarm recording data within the specified range of copy. In case of CD/DVD disc, the remaining capacity becomes low because only the management information is recorded.
- Do not use the disc which has been used on the personal computer, failed to be copied, or stopped during copying due to the power failure because they may cause malfunction of the unit.

step**3.** Set the start time of copy.
Start: Sets the start point of copy.
Continue: Starts copying from the end point of the previous copy.
- To set the start point using the bookmark, select “Bookmark” and then select the desired bookmark number.
- To copy from the oldest recording time, select “Copy Start Time.”

step**4.** Select “Execute.”
- The copy starts.
- To stop copy manually, select “Cancel” in the screen of <Copy Data to Copy 2 Drive>. The data which has been copied before cancelling is copied.

- The warning is displayed when the copied range exceeds the available capacity of the device to be copied when “FIFO Overwrite” is set to “Off” and the copy destination is HDD. In this case, set the copy setting again with narrower copy range or use a copy device with larger capacity.
- When the copy is performed during recording, the picture of the recording start and end points may not be recorded.
- When the recording data of the main device which is being copied is about to be overwritten or has been overwritten, copy is stopped. Be careful for the copy which requires long time such as overwriting copy of DVD.
- The progress bar of copy is not displayed for copy 2.
- The picture data is processed in 2 MB unit. Therefore the data is copied in 2 MB unit from the start point of the designated range when copying.

■ Copying the data of this unit to a video cassette

This function is used to copy the data of this unit to a video cassette using an analogue video cassette recorder. Data can be copied even when the unit is in recording. For the recording operation, see the instruction manual for the analogue video cassette recorder used.

step**1.** [Analogue video cassette recorder] Prepare the VCR for recording.
- Set the input source of the VCR to the external input.

step**2.** [This unit] Display the picture in its format (single/split) that you want to record.

step**3.** [This unit] If needed, use the search function to display the start position of copy.

step**4.** [Analogue video cassette recorder] Start recording.

step**5.** [This unit] Press the PLAY button to start playback.

step**6.** To stop copying, press the STOP button on this unit first. And then, stop the recording on the analogue video cassette recorder.

❗ Only the picture displayed on the monitor screen can be copied to the video cassette.

■ Playback software

When copying the data to CD/DVD or USB memory, the needed PC playback software is automatically copied on to the disc. Refer to the following for using the software.

◆ System requirements

- OS: Microsoft Windows 2000 or Windows XP.
- CPU: IBM PC/AT compatible with an Intel Pentium series processor of at least 500 MHz.
- RAM: 256 MB or more.
- HDD: System drive with unused space of at least 200 MB.
- Display device: XGA (1024 pixels x 768 pixels) or higher.

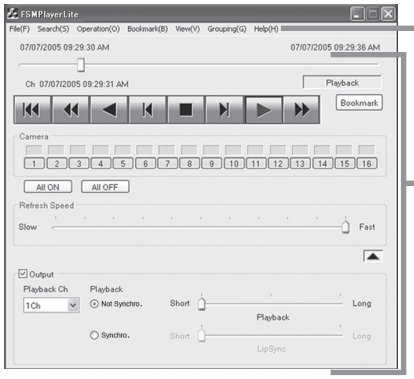
◆ Starting up the application software

step1. Load the CD/DVD/USB memory to the personal computer which has been used for copy.

step2. Double-click the icon of the disc to open.

step3. Start up the application software.
- Double-click the “FSM Player Lite.exe.” The application software starts up and the operation panel appears.
  When the picture cannot be loaded, use the [Folder] command in the [File] menu to select the picture folder to be played back.

You can open the FSMPlayerLite panel in 4 stages by clicking on the right side. In the first stage, you can select playback, search and bookmark operations. In the second stage, you can select a camera to display. In the third stage, you can adjust playback speed (reducing only) and in the fourth stage, you can make various settings for audio playback.



◆ Operational panel

Rewind
Click to jump to the head of the recording data.

Reverse Search
Click to playback the picture in the reverse direction with a higher speed than normal playback. The speed changes from X1 to X2, X4, X8 and back to X1 at every press of this button during reverse playback.

Reverse Playback
Click to playback the picture in the reverse direction.

Field Reverse
Click to display a still picture one field before.

Stop
Click to stop playback. Audio, if recorded, is played back after the stop when the audio command has been enabled.

Field Advance
Click to display a still picture one field after.

Playback
Click to playback the picture in the forward direction.

Forward Search
Click to playback the picture in the forward direction with a higher speed than normal playback. The speed changes from X1 to X2, X4, X8 and back to X1 at every press of this button during playback.

to Camera
(These buttons are displayed when the button located on the lower right of the Forward Search button is pressed.) Click to display the picture of the camera corresponding to the number of the button. The indicator turns green for the camera number which is being displayed, and it turns black for the camera number which is not being displayed. The picture is not displayed even when the indicator turns green if the data has not been copied for that camera number.

Refresh Speed
(This slider is displayed when the button located on the lower right of the Camera button is pressed.) Drag with the mouse to adjust the playback speed. When setting to [Fast], it may disrupt the operation depending on the performance of the personal computer used. Use this setting with the proper picture playback speed suitable to the personal computer used.
The playback speed slider may not be changed at a constant interval when the data which is additionally copied is played back.

Output
(This is displayed when the button located on the lower right of the Refresh Speed slider is pressed.)
[Not Synchronized playback]
Put a checkmark to [Output] on the FSMPlayerLite panel and select a playback channel from the drop-down menu. Then select [Not Synchro.] in the [Playback] field. Play back the copied data and stop at a point where you want to hear the audio. The audio data around the stop point are played back. You can change the duration of audio playback in 3 levels using the slide bar on the right side. The actual duration of audio playback varies depending on the frame rate of the recorded picture. Adjust the duration for every data to be played back.
[Synchronized playback]
Select [Synchro.] in the [Playback] field. You can play back simultaneously the audio and picture of the data downloaded in blocks via network or the data copied together with audio by a recorder. Only one playback channel is displayed in this case. Audio is not played back during other than normal playback (such as fast-forward playback and reverse playback). The [LipSync] slide bar should be adjusted according to the PC to be used and the recording status of data to be played back. In some cases, there may not be found an optimum position where the picture and audio synchronize with each other.

- In synchronized audio playback, the frequency of picture refreshing is reduced depending on the processing power of PC. When you want to playback giving priority to picture, select [Not Synchro.].
- The settings on this panel remain intact for the next start-up.
- Audio playback channel and picture display channel are not related.
- When data are played directly from a drive that is slow to read CD and DVD, audio may be output intermittently. Play back data after copying it to a HDD.

♦ File menu

Convert

When clicking during the playback is stopped, [Convert] screen appears. Specify the range to be converted and the camera number, and then press the [JPEG] or [AVI] button to convert and save the picture data collectively. Collective conversion requires adequate free space in the physical memory and the HDD for temporary files (the system partition and save drive). The limitations of available memory space and HDD space vary depending on your operating conditions.

Perform conversion starting from a small file that requires only several seconds to be converted while checking the state of the memory and the HDD.

♦ Search menu

Search

When clicking, the [Time Search] screen appears. Specify the date and time to be searched, and then click the [Search] button.

The picture of the specified time or around such time appears. The search may not be performed when the date and time information of the recorded contents is not chronological such as the data which is added to the existing data.

♦ Operation menu

For [Playback], [Stop], [Reverse Playback], [Forward Search], [Reverse Search], [Field Advance], [Field Reverse], or [Rewind], refer to the section of the “Operation panel.”

♦ Bookmark menu

A-, B-

Click to register the current playback position as Point A or Point B to repeat playback between those positions.

Repeat between A and B

Put a check mark to repeat playback between Point A and Point B you specified.

♦ View menu

Picture Size

When clicking, the options of [100%], [75%], [50%], and [25%] appear. Pictures are zoomed in or out according to the selected magnification.

Decode Level

When clicking, the options of [Fine], [Middle], and [Rough] appear. When setting the decode level to rough, the picture becomes rough and the playback update speed becomes faster.

Title Bar

When clicking, the options of [Date Time] and [Alarm] appear. Put a check mark to the item to be displayed on the screen.

♦ Grouping menu

Grouping Pattern

When clicking, the [Grouping Pattern] screen appears. When you click the [4 Multi], [6 Multi], [9 Multi], [10 Multi], [13 Multi], or [16 Multi], the split screen of the selected pattern appears. Click “Setting” to display the screen to set the display position of the camera in each screen.

♦ Menus appearing with right button clicking

To use the following functions, click the right button of the mouse on the screen to be operated. The following functions are performed only for the clicked screen.

<u>During playback:</u>

Picture Size

Refer to the section of the “View menu.”

Decode Level

Refer to the section of the “View menu.”

<u>During stopping playback:</u>

Copy

Click to copy the picture being displayed onto the clipboard.

Save As

When clicking, the [Save As] screen appears. You can save the picture being displayed as either a Windows bitmap file (.bmp) or a JPEG file (.jpg).

Picture Size

Refer to the section of the “View menu.”

Decode Level

Refer to the section of the “View menu.”

Print

When clicking, the [Print] screen appears.

After setting the [Margins], [Printer Settings...] and other options, click [Print] button to print the picture being displayed.

- When playing the data recorded in frame recording, the outline of the picture may be serrated. In such case, change the picture size to larger setting.
- When loading the media with a lot of picture data copied, playback software may take time to be started up.

■ Communications by Web Browser

The Web browser on the personal computer can capture the pictures that have been recorded and live pictures from the camera that is connected to this recorder. Also, some of the recorder settings can be made via the personal computer.

◆ The personal computer product requirements

- OS: Microsoft Windows 98SE, Windows 2000, Windows Me or Windows XP.
- CPU: IBM PC/AT compatible with an Intel Pentium series processor of at least 500 MHz.
- RAM: 256 MB or more.
- HDD: System drive with unused space of at least 200 MB.
- Web Browser Soft: Microsoft Internet Explorer 5.5 or later.
- Display device: XGA (1024 pixels x 768 pixels) or higher.

❗ Microsoft and Windows are registered trademarks of the Microsoft Corporation in the US and other regions.

(The official name of Windows is Microsoft Windows Operating System.)

All other company and product names appearing herein are the property of their respective owners.

- Windows 98SE is an abbreviation of Microsoft Windows 98 Second Edition.
- Windows 2000 is an abbreviation of Microsoft Windows 2000 Professional.
- Windows Me is an abbreviation of Microsoft Windows Millennium Edition.
- Windows XP is an abbreviation of Microsoft Windows XP Home Edition/Professional.

❗ The product requirement described above cannot guarantee operations in all environments.

❗ Lack of compatibility between Web functions and the PC peripheral driver may, in rare instances, result in abnormal operation. If this happens, upgrade to the newest version of Internet Explorer and try again.

◆ Connections

- When making a direct connection between this unit and a personal computer (hereinafter PC), use a cross cable, and when making a connection through a HUB, use a straight cable.
- Refer to the PC instruction manual for instructions on how to set the Web settings on the PC.

■ Login

Start up the Microsoft Internet Explorer and log in.

step1. Start up the Microsoft Internet Explorer and enter the IP address of the recorder.
- Enter the IP address which is set in <LAN (Communication) Setting> (System Menu → COM/LAN). When shipped from the factory, the IP address is set to “192.168.000.100.”
- The “[Login]” screen appears.

step2-1. (When logging in • • •)

First, enter the “User ID” and the “Password.” When shipped from the factory, the user ID for the full-rights user is “**root**,” and the password is “**admin000**,” the user ID for the live user is “**guest**” and the password is “**guest**.”

❗ More than one user can log in simultaneously using the same user ID and password.

❗ However, there are restrictions depending on authorization. The maximum number of users that can be connected at the same time is 10.

step2-2. Select “login” and then left-click or press ENTER.
- The “[Main Menu]” screen appears.

step3-1. (If you make an error in entering the user ID or password • • •)
- The “[Caution]” screen appears.

step3-2. Select “Login” and either left-click or press ENTER.
- The “[Login]” screen appears.

step3-3. Follow step 2-1 and enter the correct “User ID” and “Password.”

step4-1. (If you do not log in • • •)

Select “If you won’t log in, please go to Logout.” and left-click.

step4-2. The message “Session ID removed from recorder & browser. Please close the browser.” is displayed. Close the Web Browser at this point.

step5-1. (To change password • • •)

The password can be changed in the “[Login]” screen only by the user who has the authorization to change a password. Follow the instructions in the menu and enter the current “User ID” and “Password.”

step5-2. Enter the new password in “New password” and again in “New password (Confirmation).”

- The number of characters that can be used in registering a password is 16. Both alphabet letters and numbers can be used with a distinction made between upper and lower case. You cannot use spaces.

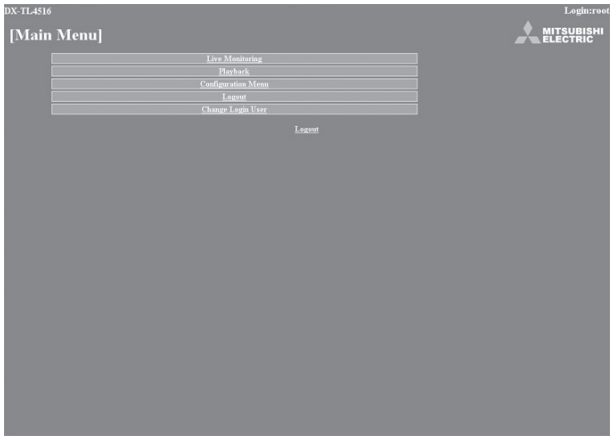
step5-3. To change to a new password, select “change” and left-click or press ENTER. To cancel the change, select “clear” and left-click or press ENTER.

Main Menu

This is the screen for selecting, from “Main Menu,” “Live Monitoring” with which live pictures are retrieved and displayed, “Playback” with which pictures that have already been recorded are retrieved and displayed, “Configuration Menu” which allows changes to the settings of the recorder, “Logout” for ending a job, or “Change Login User” for making a change in the logged-in user.

- Depending on the user’s authorization, there are certain menus that cannot be selected.
- The transfer rate at communication changes depending on the communication environment or unit’s status. For stable communication, use this unit with the proper image transfer speed suitable to the conditions of the communication line.
- The user’s session ID (connection data) is lost in 5 minutes from the final operation that includes picture retrieval. If no operations are made within that 5 minutes, no other operations can be made after that so close the browser and then log in again.
- If the unit’s MAIN switch is “OFF,” live and recorded pictures cannot be retrieved.

step1. Select the desired menu from “Main Menu” and left-click.

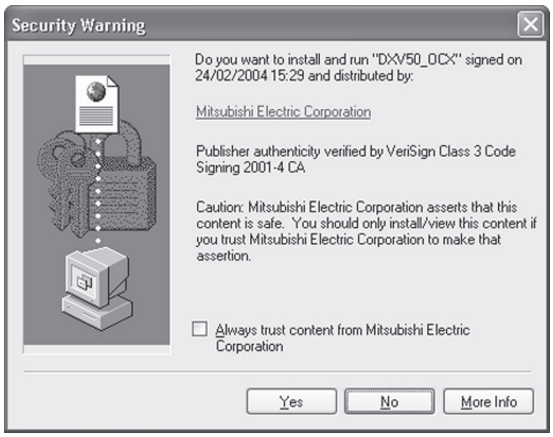


♦ Live Monitoring

Retrieves live pictures and displays the pictures on the PC screen.

step1. Select “Live Monitoring” and left-click.
- The “[Live]” screen appears.

❗ When picture acquisition is tried for the first time with the Web browser of a personal computer, a message as shown below may be displayed. If it is displayed, click “Yes.”


Security Warning
Do you want to install and run "DXV50_OCX" signed on 24/02/2004 15:29 and distributed by:
Mitsubishi Electric Corporation
Publisher authenticity verified by VeriSign Class 3 Code Signing 2001-4 CA
Caution: Mitsubishi Electric Corporation asserts that this content is safe. You should only install/view this content if you trust Mitsubishi Electric Corporation to make that assertion.
Always trust content from Mitsubishi Electric Corporation
Yes
No
More Info

❗ When the unit is recording at the full rate (100 pps), the picture supplied from the camera which is not used for recording at that time may not be updated.

<Function description>

STOP	:	Stops the retrieval of an picture.
GO	:	Starts (or restarts) the retrieval of an picture.
Display	:	For selecting either the display or non-display of a camera number.
Layout	:	For selecting from the 12 types of display patterns. (default: 4(1-4) screen)
Camera	:	Selects the camera number that you want to display and check.
Transfer Rate	:	Selects one of 5 stages from “Lo” to “Hi” for picture retrieval speed. (default: middle)
Save Layout	:	The layout of the screen display is registered to “Local PC.”
Main Menu	:	Returns to the “Main Menu.”
Logout	:	For logging out.

❗ Setting “Transfer Rate” to “Hi” may present a problem to the PC operations. This could be due to the PC’s hardware/software performance you are using. Adjust the image transfer rate that best meets your machine.

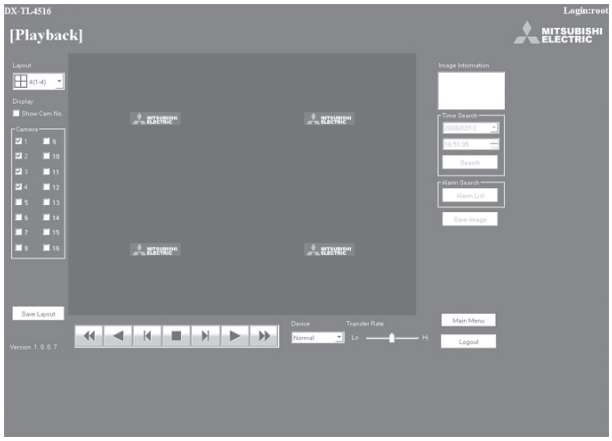
❗ Depending on the network capacity and the load conditions, the transfer rate may be affected.

❗ Picture may vibrate vertically when displaying the live picture of the camera of which picture is set for frame recording.

Playback

Retrieves, plays back and searches for pictures that have been recorded by the recorder.

step**1.** Select “Playback” and left-click.
- The “[Playback]” screen appears.



step**2.** Press the ▶ button.
- Playback starts.

<Function description>

▶ : Press to start playback.

▶▶ : Press to start speed search in the forward direction at speeds of x2, x4, x8 and x16.

▶| : Press to frame-by-frame playback in the forward direction.

◀ : Press to start reverse playback.

◀◀ : Press to start speed searches in the reverse direction at speeds of x2, x4, x8 and x16.

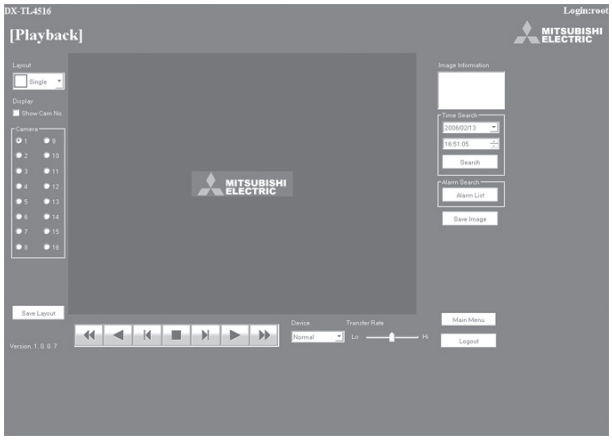
|◀ : Press to frame-by-frame playback in the reverse direction.

■ : During playback or searching, press to stop playback for still frame.

Device : Selects the HDD for playback and search. (default: Normal)

The date, time, and the camera number for the picture acquired are displayed in “Image Information.” Clicking “Save Image” stores the picture that is still-frame displayed in the PC in bit map format.

The following searches can be selected in single-screen display.



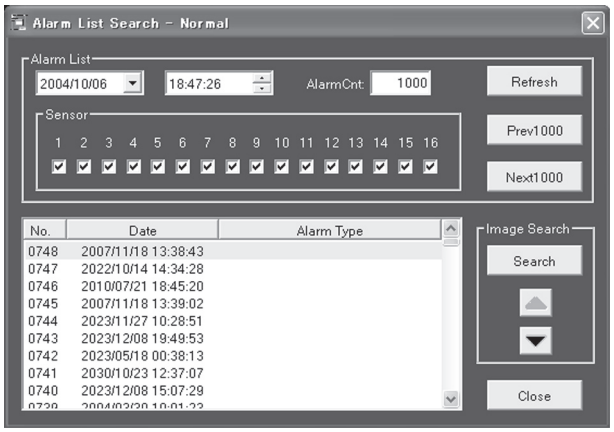
The function of searching for recorded picture data is effective only when the single-screen display has been selected in the “Playback” menu. The function cannot operate during picture data playback so to make a search of any type first stop the playback.

Time Search

Select the date and time and click “Search.”

● Alarm List Search

Click “Alarm List” and the “Alarm List Search” screen appears in the sub-screen.



step1. Set the desired date/time and number of alarm list items to be acquired, and then click “Refresh” to acquire the alarm list.
- The alarm list cannot be acquired without clicking “Refresh.”
- Enter the needed number of alarm list items to be acquired in “Alarm Cnt.” If number entered is too large, depending on the recording condition, it may take a long time to acquire the list or the desired number of list items may not be acquired.
- “Sensor”: Check the desired sensor number for acquiring the alarm list items.

step2. Select the “No.” desired, and then click “Search.”
- Click “Prev(number)” for a search in the reverse direction and click “Next(number)” for a search in the forward direction.
- Click “Refresh” again to re-acquire the “Alarm List,” and click “Close” to hide the “Alarm List Search” menu.

● Image Search

Click ▲ to display the picture of the next alarm list item.

Click ▼ to display the picture of the previous alarm list item.

♦ Configuration Menu

This is the screen for making some of the recorder settings.

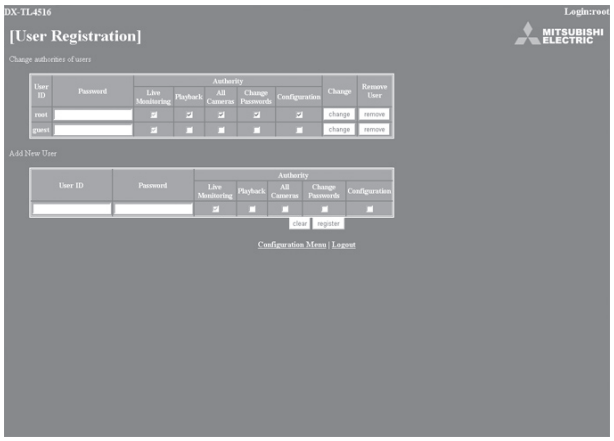
step1. Select “Configuration Menu” in the “[Main Menu]” screen.
- The “[Configuration Menu]” screen appears.

step2. Select the desired “Configuration Menu” and left-click.

● User Registration

This is the screen for changing the settings for registered user authorization, and for deleting a registration. It can also be used for registering new users.

step1. Select “User Registration” and left-click.
- The “[User Registration]” screen appears.



step2-1. (To change registered user settings • • •)

Select the user ID for changing the settings in the “Change authorities of users” settings.
- Select the items that you want to change.

<Authority>

Live Monitoring	: Allows viewing of live pictures. It is a mandatory rank to be registered.
Playback	: Allows viewing of recorded pictures.
All Cameras	: Allows viewing of pictures from all the cameras. (The picture of the cameras set to “Off” in the covert camera setting can also be displayed.)
Change Passwords	: Allows changing of user’s password.
Configuration	: Allows viewing and editing of user registration information.

- Certain items cannot be selected depending on what the user authorization is.
- “Configuration” authorization can be used by only one user. From the time that a user logs in until that user logs out and gives up authorization, any other user that logs in is regarded as a user who does not have “Configuration” authority.
- “Playback” authorization can only be used by one user. From the time that a user logs in until that user logs out and gives up authorization, any other user that logs in is regarded as a user who does not have “Playback” authority.

step2-2. (To change settings • • •)

Select “change” and left-click. The “[Change Confirmation]” screen appears.

step2-3. If you want to make the change, left-click “change.” If you want to cancel a change, left-click “cancel.”

step2-4. (When you have selected “change” • • •)

The “[Completed]” screen appears, so then left-click “User Registration.”
- The “[User Registration]” screen reappears.

step2-5. (When you have selected “cancel” • • •)
- The “[User Registration]” screen reappears.

step3-1. (To delete a registered user • • •)

Left-click on “remove” in the user ID that you want to delete in “Change authorities of users.”
- The “[Remove Confirmation]” screen appears.

step3-2. If you want to delete it, left-click “remove.” If you don’t want to delete it, left-click “cancel.”

step3-3. (If you have selected “remove” • • •)

The “[Completed]” screen appears, so left-click “User Registration.”
- The “[User Registration]” screen reappears.

step3-4. (If you have selected “cancel” • • •)
- The “[User Registration]” screen reappears.

step4-1. (To register a new user • • •)

Enter the new user ID and new password in “Add New User.”

step4-2. Refer to step 2-1, select the “Authority” desired and put a check mark.

- A user ID with the same name cannot be registered. The maximum number of characters that can be used in registering a password is 16. Both alphabet letters and numbers can be used with a distinction made between upper and lower case. You cannot use spaces.

step4-3. If you want to make a new registration, left-click “register.” If you want to cancel a new registration, left-click “clear.”

step4-4. (If you have selected “register” • • •)

It is added to “Change authorities of users.”

step4-5. (If you have selected “clear” • • •)

Clears the specified contents.

● Recorder Title & Camera Titles

This is the screen for setting or changing the recorder and the camera titles.

step1. Select “Recorder Title & Camera Titles” and left-click.
- The “[Recorder Title & Camera Titles]” screen appears.

step2. Enter the desired recorder or camera title to “New Text.”
- The recorder and the camera titles currently set are shown in the “Current Text.”

step3. Select “change” and left-click.

● E-mail Setup

This is the screen for setting the information related to the e-mail server or sender, and for setting the e-mail address of the receiver.

step1. Select “E-mail Setup” and left-click.
- The “[E-mail Setup]” screen appears.

step2. (When making the settings to send the e-mail • • •)

Input the desired settings for “SMTP Server (Host Name or IP),” “POP Server (Host Name or IP),” “POP User ID,” “POP User Password,” “DNS Server 1 Address,” “DNS Server 2 Address,” “From:,” and “Recorder ID.”
- The settings currently set are shown in the “Current Settings.”

❗ The maximum number of characters that can be used to set the e-mail address is 49.

step3. To send the test e-mail, select “From Address Test (send test mail)” and left-click.

step4. (When attaching alarm recording picture to e-mail • • •)

Put a check mark on “Picture” checkbox.
- E-mail with the picture which is captured during alarm recording is sent to the marked user. The file extension of the picture data file which is attached to e-mail is “.aap”.
- “Delay time to attachment” is used to determine the timing of capturing the picture to be attached. The time period between occurrence of alarm and capture of the picture can be set up to 10 seconds.

❗ You cannot send the picture when the alarm recording is not performed.

❗ The picture to be attached is captured during alarm recording of which trigger is input of the rear terminal.

❗ To perform this function, put a check mark on “Sensor.”

❗ When the multiple notifications are occurred at the same time, notification may be delayed or not all the items may be notified.

❗ When the alarm recording time is shorter than the specified delay time, the picture cannot be attached.

❗ When the multiple alarm signals are input at the same time, only the picture from the camera corresponding to the lowest sensor number is attached.

To view the attached picture:

In the PC with DX-PC55E (version 2.1 or later) installed,

click or double click the file.

In the PC without DX-PC55E installed,

drag the file and drop it into the “MPicViewer.exe” which is stored in the supplied CD.

The displayed picture can be printed or can be saved in general image formats.

step5-1. (When setting the receiver’s address • • •)

Enter the desired e-mail address to “New Address.”

step5-2. Set the contents to be transmitted from the recorder to the PC.
- “Remain,” “Temp/Fan,” “Reboot,” “Record,” “Alarm,” and “Sensor” settings can be set.

step5-3. Select whether to activate or inactivate the e-mail address you have set.
- When a check mark is put to “Active” column, the selected e-mail address becomes active.

step5-4. Select “set” and left-click.

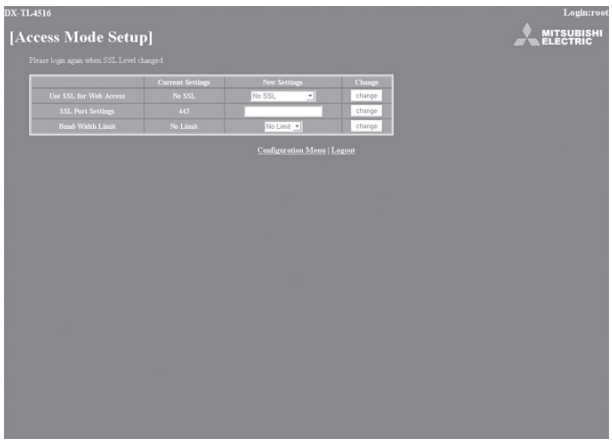
step5-5. Select “send” to send the test e-mail.

When the e-mail notifications or IP notifications have been occurred frequently, the operation of the recorder may become unstable.

● Access Mode Setup

This is the screen for changing the SSL settings.

step1. Select the item to be changed in the “Access Mode Setup.”
- Use SSL for Web Access:
  Sets the level of the encoding function (SSL).
  “No SSL”: Does not use the encoding function.
  “Menus only”: Uses the encoding function for the menus only.
  “Menus + Pictures”: Uses the encoding function for the menus and pictures.
- SSL Port Settings:
  Sets the port number used for SSL communication.
- Band-Width Limit:
  Controls the band width of the communication.

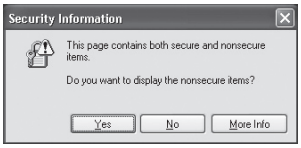


When you use SSL, the following message appears. Select “Yes” and then continue the operation.

Security Alert
Information you exchange with this site cannot be viewed or changed by others. However, there is a problem with the site's security certificate.
The security certificate was issued by a company you have not chosen to trust. View the certificate to determine whether you want to trust the certifying authority.
The security certificate has expired or is not yet valid.
The name on the security certificate is invalid or does not match the name of the site
Do you want to proceed?
Yes
No
View Certificate

When displaying live or playback picture while “Use SSL for Web Access” is set to “Menus only,” the following message appears. Select “Yes” to display the live or playback picture.

In this case, the key-shaped icon which shows the encoded communication of the browser is not displayed, however, communication is carried out with encoded.

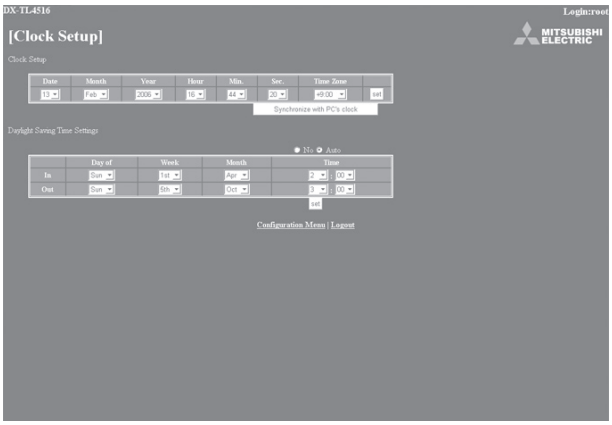


step2. Set the desired setting in “New Settings” and then select “change” and left-click.

● Clock Setup

This is the screen for setting the clock of the recorder via PC.

step1. Select “Clock Setup” and left-click.
- The “[Clock Setup]” screen appears.



step2-1. Set “Month,” “Date,” “Year,” “Hour,” “Min.,” “Sec.,” “Time Zone” to the desired time.

step2-2. Select “set” and left-click.

step3. (When setting the clock using “Synchronize with PC’s clock” • • •)

When you want the clock of the recorder to be synchronized with the PC clock, select “Synchronize with PC’s clock” and left-click.
- The clock of the recorder is set to the same time as that of the PC.
- When using this function on the timing that the year, month, day, hour, or minute is changed, check the clock after synchronizing with the PC clock.

step4. (When setting the daylight saving time function • • •)

Select “No” when you do not want to use the daylight saving time function.

Select “Auto” to use the daylight saving function.
- When selecting “Auto,” set the desired time period for activating the daylight saving time function and then select “set.”

♦ Logout

In this screen, assign “Logout” settings to end the job.

step**1.** Select “Logout” and left-click.
- The “[Logout]” screen appears.

step**2.** Close the Web Browser.

❗ If the browser is closed incorrectly (not logging out correctly), the user’s session ID is saved for 5 minutes. If the Log in is made with the same user ID within that 5 minutes, operation limits may take effect.

♦ Change Login User

This screen is for changing the logged in user.

step**1.** Select “Change Login User” and left-click.
- The “[Login]” screen appears.

step**2-1.** (To change the logged in user • • •)

In the “Login (or change login user)” settings, execute step 2-1 and 2-2 in “■ Login” and change the logged in user.
- The logged in user is changed and the “[Main Menu]” screen appears.

step**2-2.** (To log in without changing the user • • •)

Select “Return” button on the browser and left-click.

step**2-3.** (To log out • • •)

Select “If you won’t log in, please go to Logout.” and left-click.

Troubleshooting

If problems with the unit persist even after you've followed the suggestions below, disconnect the power cord and contact the retailer from whom you purchased the unit.

	Description of problem	Consult the following
INSTALLATION	The unit does not be turned on.	• Is the power cord properly plugged in? • Is the LOCK indicator light on? • Is the TIMER indicator light on? • Is the MAIN switch on the rear of the unit set to "OFF" ?
	Power is on, but the unit does not operate.	• Is the LOCK indicator light on? • Is the POWER indicator flashing? (The unit cannot be operated while the POWER indicator is flashing.) • The safety features may be in operation. Reset the unit by pressing the RESET button on the rear panel using a ballpoint pen or similar object, and then turn the power on again.
	Pictures are not appearing on the monitor.	• Are the monitor and camera(s) connected correctly? • Is the unit receiving an input signal from the selected camera? Check this by displaying the SPLIT9 screen.
	The quality of the monitor picture is poor.	• Is the connecting cord connected correctly? • Is the camera's focus adjusted correctly?
RECORDING	The unit does not start recording.	• Is repeat recording set to "Repeat Off"? • The recording starts after the time set for recording rate is passed. Was the unit stopped during that time?
	The unit does not stop recording.	• Is the LOCK indicator light on? • During normal recording, alarm recording, and emergency recording, press the REC/STOP button for more than 2 seconds. • Is timer recording in progress? To stop timer recording, press the TIMER button for more than 2 seconds.
	The unit does not repeat the recording.	• Is repeat recording set to "Repeat On"?
	The unit does not perform timer recording.	• Are the date and current time set accurately? • Are the recording start-/end-times and the recording rate set correctly? • Is repeat recording set to "Repeat Off"?
	The unit does not perform alarm recording.	• Is the recording rate for alarm recording set to "– – –"? • Is the recordable capacity for alarm recording area full? • Is the unit in timer recording stand-by mode? (Is the TIMER indicator light on?) • Are the peripheral switches, etc., connected correctly?

	Description of problem	Consult the following
PLAYBACK	The unit does not perform playback.	• Is the LOCK indicator light on? • Has the data been erased? • Is the correct playback device selected?
PERIPHERAL RECORDING DEVICE	The copy device dose not respond.	• Has the recording medium been inserted correctly into the unit? • Is the unit currently in the middle of loading the recording medium? • Is the correct playback device selected? • Has the recording medium's write-protect been removed? • Is the power supply of peripheral recording device set ON? • Is the copy device registered in the <Add/Remove HDD Device> or <Add/Remove DVD/CD Drive>?
OTHERS	The camera cannot be controlled via this unit.	• Is the camera to be controlled connected correctly? • Is the <PTZ Setting> menu set correctly?
	The unit does not perform the motion detection function.	• Is trigger for alarm recording of the camera number for which the motion detection function to be executed set to “External” ? • Is the alarm recording rate of the camera number for which the motion detection function is executed set to “– – –”? • Is the value set in “Motion Threshold” of the <Motion Det> menu larger than that of “Motion Mask Settings” ? • Is the detection area set correctly?
	The unit cannot be controlled via the personal computer.	• Is the <COM/LAN> menu set correctly ? • Are the unit and the personal computer connected correctly ? • Is there a defect in the connecting cable ? • Is the proper connecting cable being used ?
	There is a camera number with a blue screen during split screen display.	• The screen of camera number with no video signal input appears blue even when setting for operation.
	Button operation is not working.	• Is the POWER indicator flashing? (The unit cannot be operated when the POWER indicator is flashing.) • Is the LOCK indicator light on?
	Cameras cannot be switched with the camera number buttons.	• Is the menu screen being displayed? Camera number buttons cannot be used when the menu screen is displayed.
	Menus cannot be set.	• When OUTPUT B is selected, the cursor of the mouse is displayed, however, the menu screen is not displayed and cannot be set. The menus can be set only when the OUTPUT A is selected.
	Following functions do not work: • Copy1 • Deletion of copy 1 device data • Loading/Saving menu • Restore • Picture copy	• Is section download function (the function to copy the picture data remotely using the supplied application software, DX-PC55E) performed via communication? The functions described to the left are not performed while section download function is in use.

Warnings and CALL OUT output

■ Warnings and their appropriate countermeasures

#1 Options in the CALL OUT output column:
- Selectable: Selects to output CALL OUT signal or not on the menu screen.
- Fixed: Outputs CALL OUT signal from the CALL OUT terminal regardless of the menu setting.
- None: Does not output CALL OUT signal, but displays a warning on the screen.

The warning display appears when the HELP button is pressed during “ALERT” is displayed on the screen. The contents of last 16 warnings are stored and can be displayed. The contents older than them are cleared and output of CALL OUT is cancelled. CALL OUT signal output can be stopped by pressing the E button or clicking “Clear Warning” while displaying the warning display.

Warning Display	Countermeasure	Cancelling the warning	Log number	CALL OUT output #1
The remaining capacity of Normal Area in Main device has become less than **%.#2	• Copy data as necessary.	Click "Clear Warning" or press the E button.	LOG1200	Selectable
The remaining capacity of Alarm Area in Main device has become less than **%.#2			LOG1201	
The remaining capacity of LPA Area in Main device has become less than **%.#2			LOG1202	
The remaining capacity of Copy 2 disk has become less than **%.#2			LOG7200	
The remaining capacity of Normal Area in Main device has become 0%.	• When the warning is cancelled, the unit starts overwriting the oldest data remaining in the HDD. • Copy data as necessary.	Click "Clear Warning" or press the E button.	LOG1100#3 LOG4100#4	Selectable None
The remaining capacity of Alarm Area in Main device has become 0%.			LOG1101#3 LOG4101#4	Selectable None
The remaining capacity of LPA Area in Main device has become 0%.			LOG1102	Selectable
The remaining capacity of disc in Copy 1 drive has become 0%.	• Replace media if necessary.	Click "Clear Warning" or press the E button.	LOG3100	None
The remaining capacity of disc in Copy 2 drive has become 0%.			LOG7100	Selectable
Copy data size error. Check the range of copy data or the disk space of copy media.	• Set the copy/restore range again. • Replace with new media.	Click "Clear Warning" or press the E button.	LOG3701#5 LOG7701#6 LOG4701#4	None
Copy media error. Cannot copy the data. Check the copy device.	• Check that media is in the recording device. (If not, insert the media.) • Check whether that the write-protect of the media is enabled. Is so, cancel the protection. • After turning off the power of the peripheral recording device and the unit, reboot in order of peripheral recording device and the unit. • After turning off the power of the peripheral recording device and the unit, check a cable.	Click "Clear Warning" or press the E button.	LOG3702#5 LOG7702#6 LOG4702#4	None
No disk. The drive has no disk or wrong type of disk. Put a proper disk into the drive.	• Insert the disc.	Click "Clear Warning" or press the E button.	LOG3703#5 LOG7703#6 LOG4703#4	None
The remaining capacity of disc in Copy 1 drive has become 0%. Put a new disk into the drive.	• Replace the disc.	Click "Clear Warning" or press the E button.	LOG3704#5	None
The remaining capacity of disc in Copy 2 drive has become 0%. Put a new disk into the drive.			LOG7704#6	

#2 : The value depends on the setting.
#3 : Log number for recording
#4 : Log number for restore
#5 : Log number for copy 1
#6 : Log number for copy 2

#7 : (The following numbers are entered in □□)
01 : CH 1 02 : CH 2 03 : CH 3 04 : CH 4
05 : CH 5 06 : CH 6 07 : CH 7 08 : CH 8
09 : CH 9

#8 : 13□□,14□□: Recording 23□□,24□□: Playback
33□□,34□□: Copy 1 43□□,44□□: Restore
73□□,74□□: Copy 2
(The following numbers are entered in □□)
00 : A (Internal) 01 : B (Internal)
10 to 25 : USB (External)

Warning Display	Countermeasure	Cancelling the warning	Log number	CALL OUT output #1
No Camera Signal Camera signal is lost or distorted. Please check the camera and cable connection.	• Check whether the unit and camera are properly connected and turned on. • Check whether the video signal is being properly outputted. • Check whether the camera with no video signal input is set for operation.	Stop recording. Output video signals. Click "Clear Warning" or press the E button.	LOG54□□#7	Fixed
It can use as it is though a slight error occurred.	• Continue the operation when there is no abnormality. • When the error occurs continuously, check the HDD/media and cable and then restart the unit.	Automatically clears after 1 minute.	LOG13□□#8 LOG33□□#8 LOG43□□#8 LOG73□□#8	None
		———	LOG23□□#8	
System suspended due to unstable processing. Recording will be resumed. HDD ＊＊＊＊was disconnected.	• Restart the unit.	Click "Clear Warning" or press the E button.	LOG14□□#8	Fixed
System suspended due to unstable processing. Start operation again.			LOG74□□#8	
		Automatically clears after 1 minute.	LOG24□□#8 LOG34□□#8 LOG44□□#8	None
The recorder detected the data altered or data recorded by other recorder.	———	Click "Clear Warning" or press the E button.	LOG55□□#7	None
Recorder detected technical problems on the device.	———	Click "Clear Warning" or press the E button.	LOG6200	Fixed
The recorder has been rebooted. The problem is not critical, but check the recorder.	• Check the unit.	Click "Clear Warning" or press the E button.	LOG5100	Fixed
Internal temperature is getting too high, check the ventilation of the recorder.	• Turn off the power and change the installation condition.	Click "Clear Warning" or press the E button.	LOG5200	Fixed
Internal temperature is getting too high, stop the operation of the recorder immediately.	• Turn off the power and change the installation condition.	Click "Clear Warning" or press the E button. Lower the temperature.	LOG5201	Fixed
The fan of the recorder needs to be checked.	• Turn off the power and stop using.	Click "Clear Warning" or press the E button. Rotate the fan.	LOG5300	Fixed
Copying data stopped because of new record overwrites the old data.	• Stop HDD recording to continue copy/backup.	Click "Clear Warning" or press the E button.	LOG3500#5 LOG7500#6	None
New record will soon overwrite the old data in copying. Stop the recording, if you want to continue the copying.	• Stop HDD recording to continue copy/backup. • Stop copy/backup to continue HDD recording.	Click "Clear Warning" or press the E button.	LOG3600#5 LOG7600#6	None
(NONE)	• Restarts by watchdog operation or for self-recovery.	———	LOG5101 LOG5102 LOG5103	–

#Regarding LOG14□□: Displays during recording. The system shuts down once and then resumes recording. (The error HDD is automatically deleted from the recording device. The recording is continued until all the registered HDDs are used up.)

#Regarding LOG24□□ to 74□□: Displays during copying or playback. The playback or copy stops because the system shuts down. Carry out playback or copy again.

#Regarding LOG 54□□: Displays during recording when the video signal is not existed for the camera being recorded for 2 seconds or more. This warning may not be displayed for the recording of which recording time is less than 2 seconds.